

## **REMARKS**

### **Status of the Claims**

Upon entry of the amendment above, claims 1-23 and 25-40 will remain pending, claims 1, 19, and 30 being independent. Claims 10-12 stand withdrawn from consideration as being directed to non-elected invention(s).

### **Summary of the Office Action**

Claims 6 and 7 are rejected under 35 USC §112, second paragraph, as being indefinite.

Claims 1-4, 8, 9, 13, 14, 16-23, 25, 27, and 28 are rejected under 35 USC §102(e) as being anticipated by DACHGRUBER et al. (U.S. Patent No. 6,360,454, hereinafter "DACHGRUBER").

Claims 1, 2, 4-9, 17, 19-23, and 26-28 are rejected under 35 USC §102(b) as being anticipated by RATHMELL (U.S. Patent No. 4,043,059).

Claim 15 is rejected under 35 USC §103(a) as being unpatentable over DACHGRUBER.

Claims 2 and 4 are rejected under 35 USC §103(a) as being unpatentable over DACHGRUBER in view of OTTIERI (U.S. Patent No. 4,669,202), or in view of DODGE et al. (U.S. Patent No. 4,841,650, hereinafter "DODGE").

Claims 29-39 are rejected under 35 USC §103(a) as being unpatentable over RATHMELL in view of DACHGRUBER.

Claims 30 and 40 are rejected under 35 USC §103(a) as being unpatentable over FILICE in view of DACHGRUBER.

Claim 1 is objected to because "said rigidity" lacks proper antecedent basis.

**Response to the Office Action**

**A. Summary of Amendments**

Paragraphs 0011 and 0032 have been amended with regards for cosmetic/grammatical reasons.

Independent claim 1 has been amended to improve its form and to respond to the above-mentioned objection thereto (*i.e.*, to provide "proper" antecedent basis for "said rigidity"). Applicant submits that claim 1 clearly specifies that the abutment *limits* bending of the frame of the protective article of the invention, rather than merely "resisting flexion to some degree," as mentioned on page 6, line 13 of the Office action.

Dependent claim 2 has been amended to emphasize that the closing of notch of the bending zone limits the bending of the frame.

Dependent claim 5 has been amended to improve its form.

Dependent claim 6 has been amended to specify that the rigid frame is "detachably positioned upon said envelope to allow the protective article to be detached from said envelope to allow the person to wear the envelope without having the protective article positioned thereupon." In addition, the end of claim 6 has been clarified by amendment to specify that the "compression" referred to at the end of the claim is in response to the engagement between the rigid frame and the shock-absorbing element during bending.

Dependent claim 7 has been amended to specify that a portion of the frame of the protective article extends into a pocket of the envelope.

Independent 19 has been amended to change references to "a body" to "an envelope" (line 3), *i.e.*, whether such "envelope" were to be a boot, a glove, other garment or any portions of such items, which can be worn by a wearer. Like claim 6, claim 19 has been amended to specify that the protective article comprises a "frame" that is "*detachably mounted*" with respect to the envelope to allow the person to wear the envelope without the

protective article.”

In addition, independent claim 19 has been amended to further specify that the opposed edges of at least one abutment reach a limiting position whereby such edges cannot be moved closer together at the end of the range of bending of the frame. That is, claim 19 is more limited than to “resisting flexion to some degree,” mentioned on page 6, line 13 of the Office action.

The preambles of claims 19-29 have been amended to change reference from a “protective article” to a “sports apparatus,” which is believed more appropriate since claim 19 itself includes, as a limitation, the “envelope”, which is something to which the protective article can be mounted upon or within.

Dependent claim 29 has also been amended to give context to “said beginning value” of the range of bending of the frame.

Independent claim 30 has been amended to specify that the “frame” is *detachable* from the claimed boot to allow the wearer of the boot to wear and to use the boot without the frame. In addition, claim 30 has been amended to refer to the opposed edges of at least one abutment to reach limiting positions whereby such edges cannot be moved closer together at the end of the range of bending of the frame. As with claims 6 and 19, as amended, claim 30 is more limited than to “resisting flexion to some degree,” mentioned on page 6, line 13 of the Office action.

**B. Withdrawal of Rejection of Claims 6 and 7 for Indefiniteness and Objection to Claim 1**

Reconsideration and withdrawal of the rejection of claims 6 and 7 for indefiniteness, under 35 USC §112, second paragraph, is requested.

The rejection includes the statement that “[i]t is unclear what structure is the recited ‘envelope’.”

In reply, Applicant directs the Examiner's attention to the first sentence of paragraph 0009 of the specification of the instant application, where an example of the term "envelope" is given as a boot.

In addition, the Examiner's attention is additionally directed to paragraphs 0032 (boot or glove), 0037 (upper and tongue of a boot), 0050 (upper of a boot), 0057 (binding), and 0061 (portion of a glove) in which additional examples are cited as corresponding to the term "envelope." Thus, understood in the context of Applicant's disclosure, the metes and bounds of the limitations appearing in claims 6 and 7 can be determined.

Reconsideration and withdrawal of the objection to claim 1 for lacking a proper antecedent basis for "said rigidity" is requested in view of the aforementioned amendment thereto.

### **C. Withdrawal of Rejections That Rely Primarily Upon DACHGRUBER**

Reconsideration and withdrawal of the rejections, both under 35 USC §102(e) and under 35 USC §103(a), based solely or primarily upon DACHGRUBER, are requested for the reasons of record and for the following reasons.

Page 3, lines 13-14, and page 6, lines 8-10 of the Office action include the statement that the "edges of the apertures or notches of DACHGRUBER "are capable of having the function of limiting *or resisting flexion to some degree ...*" (emphasis added).

A careful reading of each of Applicant's independent claims, however, will show that Applicant's invention has not been, nor is it now, as broadly stated as that. That is, rather than merely specifying a structure that *resists flexion to some degree*, the structure of Applicant's invention ***limits*** bending of the frame of the protective article beyond the end of a predetermined angle of bending to prevent hyperextension of one's joint.

That is, Applicant's invention is not merely directed to providing a modification of the flexibility of a boot, a sports article/apparatus. Rather, Applicant's invention includes a

frame which provides a controlled *limit* to the extent to which a person's joint can be bent so that hyperextensions can be prevented.

Nowhere in the disclosure of DACHGRUBER is there mention of any "abutment" 98, 100, 102 having abutting edges or even compressing a compressible material therebetween which causes the opposed edges from not moving forward further to thereby limit further movement. Instead, DACHGRUBER's elements 98, 100, 102 permit flexing without concern for a limit.

At least for this reason, DACHGRUBER fails to anticipate Applicant's invention specified in the rejected claims.

In addition, Applicant submits that elements 98, 100, and 102 are not "abutments" as recited in Applicant's claims, for reasons set forth in the Remarks section of Applicant's prior reply; Applicant's arguments presented therein do not appear to have been addressed. Surfaces of elements 98 and 100, for example, are not disclosed by DACHGRUBER as abutting to limit bending of the stiffener 24, nor as reaching a point at which they come together to a maximum extent which limits further bending of the stiffener 24. Affecting flexion of the stiffener "to some degree," as specified in the rejection, does not meet the terms of the rejected claims which reference *limiting the bending* of Applicant's frame.

In addition, in DACHGRUBER's boot, the stiffener 24 slides relative to the tongue to allow the boot to be flexed. None of the elements 98, 100, 102 limits the flexion; instead, if anything it is the lower edge 44 of the recess 40 in the embodiments of Figs. 2, 3; see column 3, line 59, to column 4, line 8, which engages the lower end 36 of the stiffener 24.

Further, even if the stiffener 24 is removably attached to the tongue 22, it is not the stiffener itself that carries two opposed edges that limit bending. Instead, it is merely an end of the stiffener abutting a surface of the "envelope," i.e., the tongue or upper of the

boot. Therefore, for the stiffener 24 of DACHGRUBER to function properly for any given boot, the boot has to be appropriately modified so that an appropriately dimensioned recess (like recess 40 of DACHGRUBER) so that the end of the stiffener 24 can engage the end of the recess at the appropriate time.

By contrast, with Applicant's frame, recited in the rejected claims, it is the structure of the frame itself, independent of the envelope (*i.e.*, boot, liner, glove, *etc.*), that controls the limit of bending.

Regarding dependent claim 3, in which Applicant specifies that "the frame is flexed on a flexible and substantially inextensible membrane ***against movement along the membrane***, Applicant has "noted" column 4, lines 11-16 of DACHGRUBER, referenced in the rejection. Therein, DACHGRUBER mentions that the previously described sliding of the stiffener relative to the tongue could be made so that it is not "intended to move appreciably relative to the tongue 22." Nevertheless, even in that non-illustrated embodiment, the stiffener moves.

Still further, in Applicant's claimed invention (claim 3), the "inextensible membrane" is part of the claimed protective article. By contrast, in DACHGRUBER, there is no such membrane of the stiffener.

At least for the reasons above, and reasons advanced in Applicant's reply to the prior Office action, reconsideration and withdrawal of the rejections are requested.

**C. Withdrawal of Rejections Based Upon RATHMELL, Solely or Primarily**

Reconsideration and withdrawal of the rejection, under 35 USC §102(b) under 35 USC §102(b), based upon RATHMELL, is requested, as is the rejection, under 35 USC §103(a), based upon RATHMELL and DACHGRUBER, at least for the following reasons.

In dependent claim 6 and independent claim 19, as amended, Applicant specifies an "envelope" (which, when read in context with Applicant's disclosure, can refer to a boot, a

portion of a boot, a liner, a glove, etc.), whereby the rigid frame is detachably positioned upon, or with respect to, the envelope. By contrast, in RATHMELL only the elastic member shown in Figs. 3 and 4 is detachable from the boot. The members 4 and 5, for example, are an integral part of the boot. Accordingly, reconsideration and withdrawal of the rejection of claims 6 and 19, and the claims depending therefrom, is requested.

In fact, in the rejection, the foot-covering section 1 of the boot and the leg-holding section 2 of the boot are identified as "supports" in Fig. 1 of RATHMELL. In addition, the rejection identifies elements 1, 2 of RATHMELL's boot as "the envelope." Applicant submits that elements 1 and 2 cannot be both the "supports" and "the envelope," particularly inasmuch as claim 6 refers to "said rigid frame, including said supports, being detachably positioned upon said envelope ...."

Similarly, independent claim 19 specifies that the frame of the protective article is detachably mounted with respect to the envelope. The rejection does not identify which portion of RATHMELL's boot corresponds to Applicant's recited frame in claim 19.

Regarding Applicant's independent claim 1, the rejection asserts that RATHMELL includes a rigid frame. Reference is then made to Fig. 1 of RATHMELL, but the "rigid frame" of a "protective article for a joint of a person's body" is not identified. Within the rejection, elements 1 and 2 of RATHMELL's boot are identified as "the envelope 1, 2." Further, In column 1, lines 35-39, RATHMELL explains that the corrugated sections 4 are flexible. The lines of corrugation enhance the flexibility of section 4. Therefore, Applicant submits that the flexible section 4 of RATHMELL and the rigid frame according to Applicant's invention are patentably different.

Applicant's independent claim 30 specifies that the frame, which comprises a tibia support, an instep support and a bending zone, is "detachable from the boot to allow the wearer to wear and to use the boot without the frame." RATHMELL, whether considered

alone or with any teachings of DACHGRUBER, does not address this limitation. In RATHMELL, it is the elastic member shown in Figs. 3 and 4 that is detachable. Accordingly, reconsideration and withdrawal of the rejection of claim 30 and its dependent claims is requested.

Still further, DACHGRUBER discloses a frame, the flexibility of which is adjustable, the frame always being flexible. Further, RATHMELL discloses a section of a boot that is flexible. Accordingly, one skilled in the art would be taught to make a flexible frame by either or both DACHGRUBER and RATHMELL. No motivation is provided for making a rigid frame, as specified in Applicant's claim 30, which includes at least one pair of abutting edges which define a maximum bending of the frame.

At least for the reasons above, and reasons advanced in Applicant's reply to the prior Office action, reconsideration and withdrawal of the rejections are requested.

**D. Withdrawal of Rejection Based Upon FILICE in view of DACHGRUBER**

Reconsideration and withdrawal of the rejection under 35 USC §103(a), based upon FILICE in view of DACHGRUBER, is requested at least for the following reasons.

This rejection is premised upon the notion that DACHGRUBER would suggest to one skilled in the art that the skate boot of FILICE could be modified such that the angle of movement of FILICE's skate boot is no greater than 45 degrees. However, no explanation as to how that would be accomplished is advanced.

FILICE discloses a boot having a flexible ankle cuff section (see column 1, lines 33-38). The ankle cuff section is constructed of synthetic material of equal or greater flexibility than the lower and the upper sections of the boot (see column 1, lines 47-50). The ankle cuff section 40 and the flexible tongue section 26 are each constructed and designed to provide controlled flexibility, *i.e.*, controlled to have an equal or greater flexibility in desired directions than the lower or the upper sections 10, 30 of the boot and the upper and lower



parts 22, 24 of the tongue (see column 2, lines 44-52).

Section 26 is flexible (see column 3, lines 8-12 and lines 26-31). It is also explained (see, e.g., column 4, lines 1-8) that the relatively thick central region 27 of the tongue abuts the lateral edges 44 of the flexible cuff section. This prevents migration of the tongue 20 from the desired frontal position to the left or to the right of the user's foot.

*In any event, there is no disclosure of an abutment, nor of an abutment that limits bending beyond a predetermined angle.*

Although DACHGRUBER mentions allowing flexion up to an angle of 45 degrees, DACHGRUBER relies upon a structure different from Applicant's invention for reasons explained above, including the lower edge 44 of the recess 40 engaging the end of the stiffener 24.

Again, as explained above, Applicant accomplishes more than merely adjusting stiffness with his invention, including that recited in independent claim 30. Rather than merely adjusting the stiffness, bending of the specified frame is **limited** beyond a specified angle of movement.

### **SUMMARY AND CONCLUSION**

The grounds of rejection advanced in the Office action have been addressed and are believed to be overcome. Reconsideration and allowance are respectfully requested in view of the amendment and remarks above.

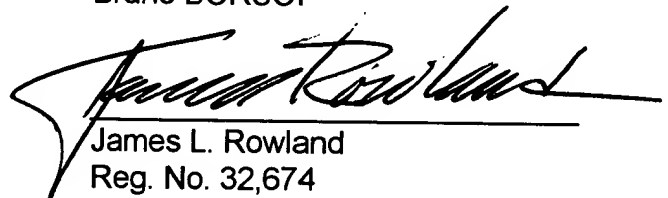
A check is attached for payment of a fee for an extension of time for one month. No additional fee is believed to be due at this time. However, the Commissioner is authorized to charge any fee required for acceptance of this reply as timely and complete to Deposit Account No. 19-0089.

Further, although an extension of time for a single month is believed to be necessary at this time, if it were to be found that an additional extension of time were necessary to

render this reply timely and/or complete, Applicant requests an extension of time under 37 CFR §1.136(a) in the necessary increment(s) of month(s) to render this reply timely and/or complete and the Commissioner is authorized to charge any necessary extension of time fee under 37 CFR §1.17 to Deposit Account No. 19-0089.

Any comments or questions concerning this application can be directed to the undersigned at the telephone or fax number given below.

Respectfully submitted,  
Bruno BORSOI



James L. Rowland  
Reg. No. 32,674

October 31, 2005  
GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191

703-716-1191 (telephone)  
703-716-1180 (fax)